CLAIMS:

1. A three-dimensional spatial filtering apparatus for conducting filtering on a three-dimensional image by a three-dimensional spatial filter, comprising:

a coefficient adapting device for changing coefficients of said three-dimensional spatial filter according to a property of a pixel value in said three-dimensional image.

2. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a pixel value of a pixel-of-interest in the three-dimensional image convoluted with the filter.

3. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is an average value of pixel values of the pixel-of-interest in the three-dimensional image convoluted with the filter and its neighboring pixels.

4. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a maximum value of pixel values of the pixel-of-interest in the three-dimensional image convoluted with the filter and its neighboring pixels.

5. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a minimum value of pixel values of the pixel-of-interest in the three-dimensional image convoluted with the filter and its neighboring pixels.

6. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a median value of pixel values of the pixel-of-interest in

the three-dimensional image convoluted with the filter and its neighboring pixels.

7. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a maximum value of absolute values of differences between a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels.

8. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a maximum value of squares of differences between a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels.

9. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a minimum value of absolute values of differences between a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels.

10. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a minimum value of squares of differences between a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels.

11. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a median value of absolute values of differences between a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels.

12. The three-dimensional spatial filtering apparatus of claim 1, wherein said property is a median value of squares of differences between a pixel

value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels.

13. The three-dimensional spatial filtering apparatus of claim 1, wherein the coefficients of the three-dimensional spatial filter are adapted depending upon, as said property, a property of a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter or its neighboring pixels.

14. The three-dimensional spatial filtering apparatus of claim 13, wherein a standard deviation of the pixel-of-interest in the three-dimensional image convoluted with the filter and its neighboring pixels is employed as an indicator of said property.

15. The three-dimensional spatial filtering apparatus of claim 13, wherein a sum of absolute values of differences between a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels is employed as an indicator of said property.

16. The three-dimensional spatial filtering apparatus of claim 13, wherein a square sum of differences between a pixel value of the pixel-of-interest in the three-dimensional image convoluted with the filter and pixel values of its neighboring pixels is employed as an indicator of said property.

17. A three-dimensional spatial filtering method for conducting filtering on a three-dimensional image by a three-dimensional spatial filter, comprising the step of:

adapting coefficients of said three-dimensional spatial filter according to a property of a pixel value in said three-dimensional image.

18. The three-dimensional spatial filtering method of claim 17, wherein said property is a pixel value of a pixel-of-interest in the three-dimensional image convoluted with the filter.

19. The three-dimensional spatial filtering method of claim 17, wherein said property is an average value of pixel values of the pixel-of-interest in the three-dimensional image convoluted with the filter and its neighboring pixels.

20. The three-dimensional spatial filtering method of claim 17, wherein said property is a maximum value of pixel values of the pixel-of-interest in the three-dimensional image convoluted with the filter and its neighboring pixels.